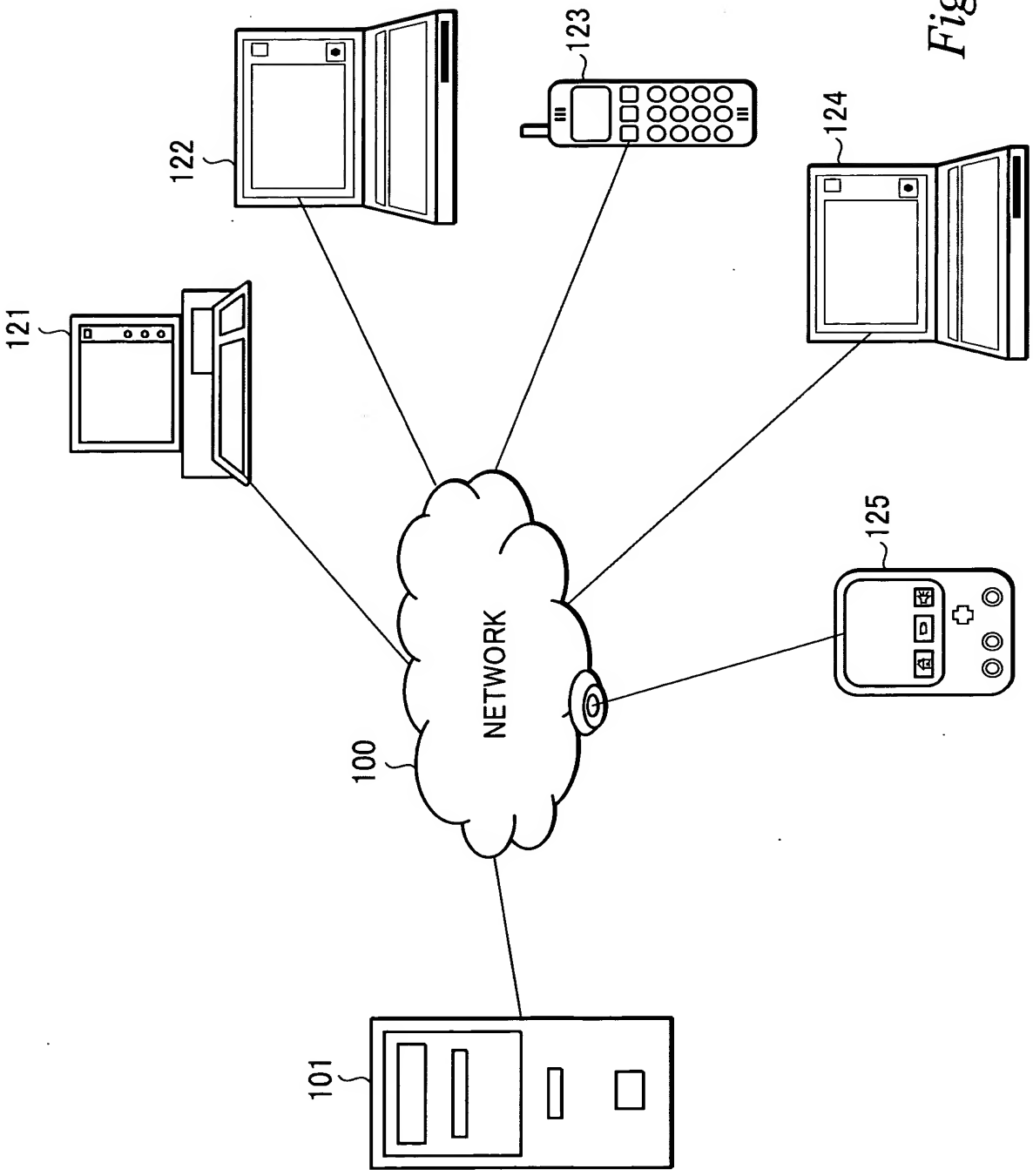

Fig.1

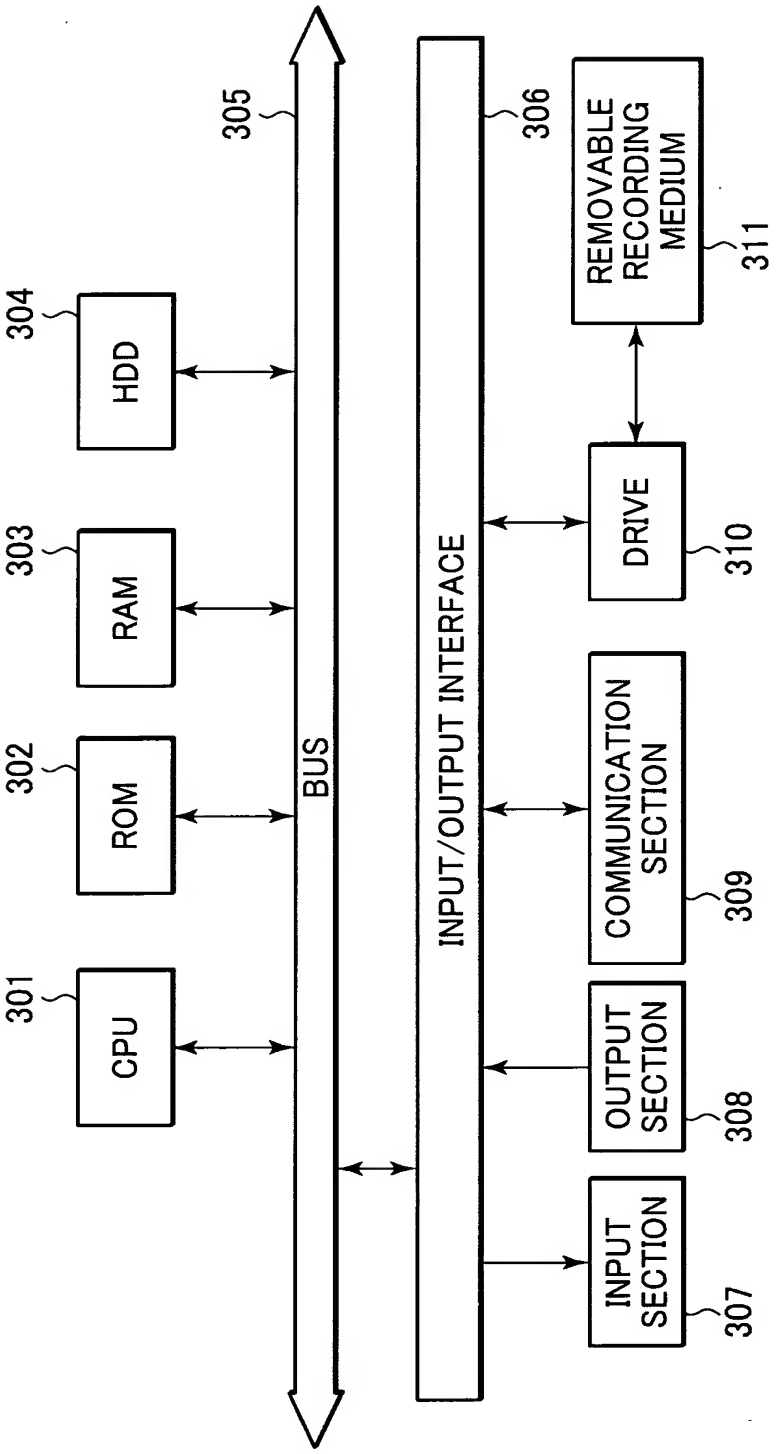
301
CPU
302
ROM
303
RAM
304
HDD
305
BUS
306
INPUT/OUTPUT INTERFACE
307
INPUT SECTION
308
OUTPUT SECTION
309
COMMUNICATION SECTION
310
DRIVE
311
REMOVABLE RECORDING MEDIUM

Fig.2

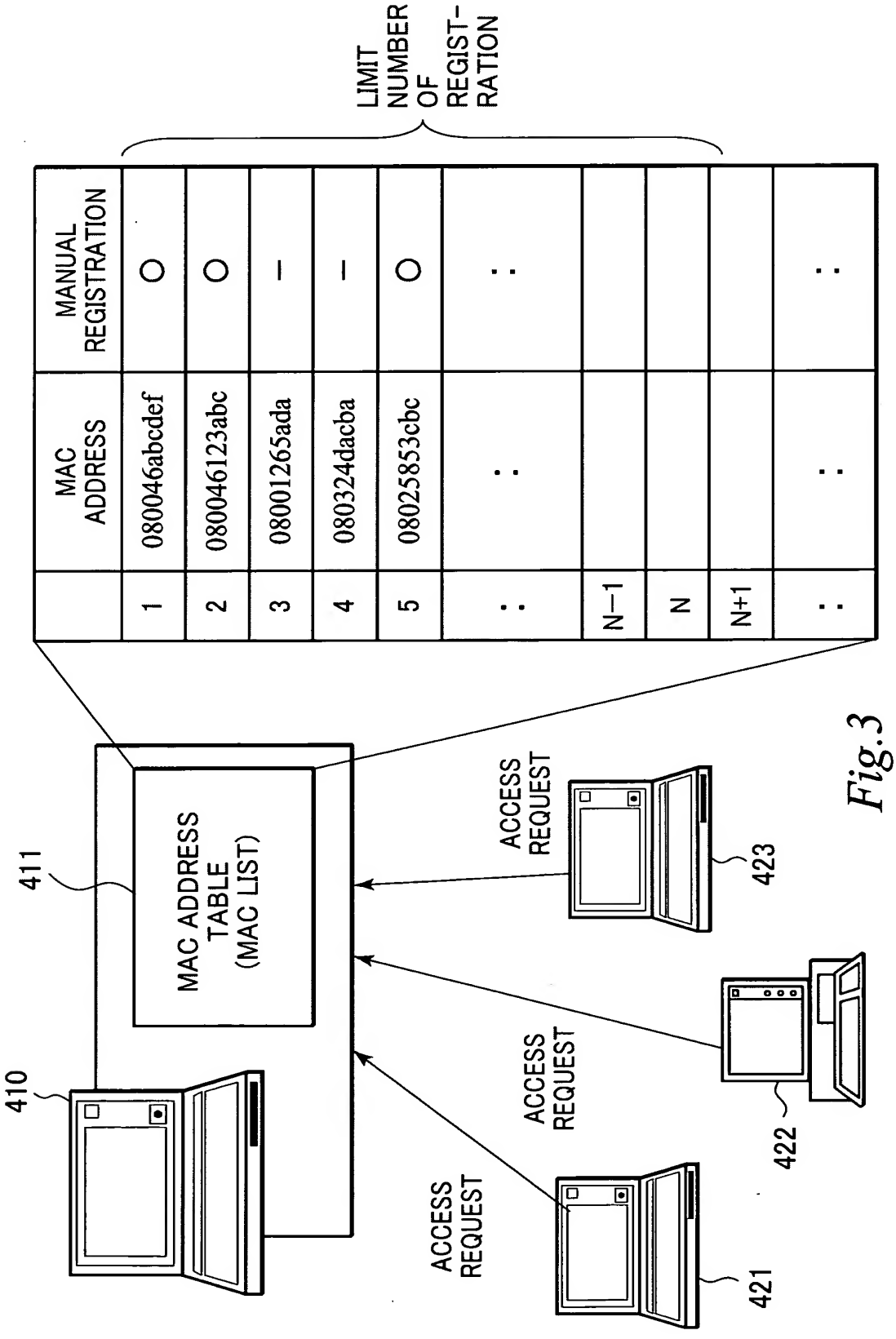
LIMIT NUMBER OF REGIST-RATION
MAC ADDRESS
MANUAL REGISTRATION
1
080046abcdef
O
2
080046123abc
O
3
08001265ada
—
4
080324dacba
—
5
08025853cbc
O
N−1
N
N+1
411
MAC ADDRESS TABLE (MAC LIST)
410
ACCESS REQUEST
421
ACCESS REQUEST
422
ACCESS REQUEST
423

Fig.3

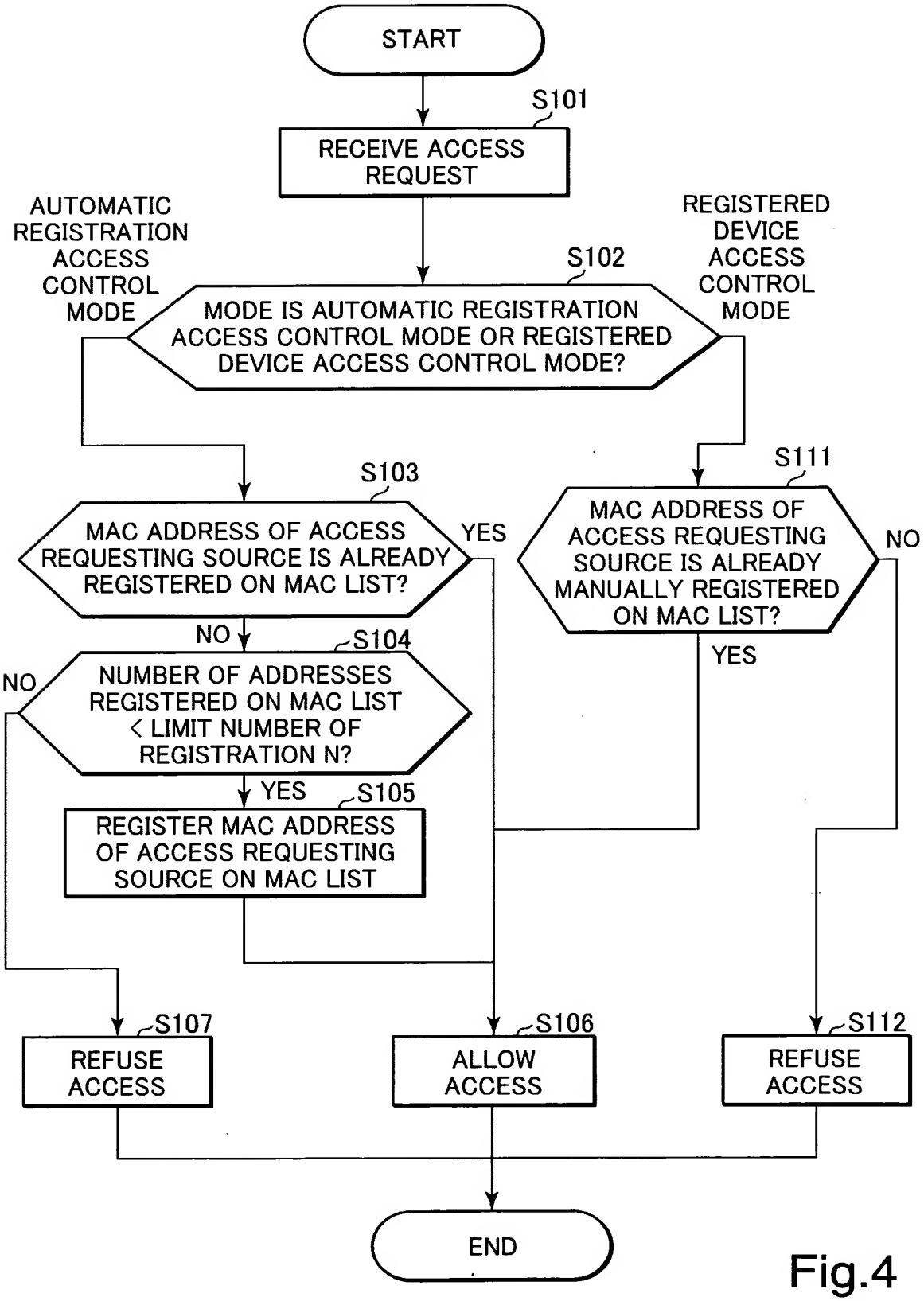
START
S101
RECEIVE ACCESS REQUEST
AUTOMATIC REGISTRATION ACCESS CONTROL MODE
REGISTERED DEVICE ACCESS CONTROL MODE
S102
MODE IS AUTOMATIC REGISTRATION ACCESS CONTROL MODE OR REGISTERED DEVICE ACCESS CONTROL MODE?
S103
MAC ADDRESS OF ACCESS REQUESTING SOURCE IS ALREADY REGISTERED ON MAC LIST?
YES
NO
S104
NUMBER OF ADDRESSES REGISTERED ON MAC LIST < LIMIT NUMBER OF REGISTRATION N?
NO
YES
S105
REGISTER MAC ADDRESS OF ACCESS REQUESTING SOURCE ON MAC LIST
S111
MAC ADDRESS OF ACCESS REQUESTING SOURCE IS ALREADY MANUALLY REGISTERED ON MAC LIST?
NO
YES
S107
REFUSE ACCESS
S106
ALLOW ACCESS
S112
REFUSE ACCESS
END

Fig.4

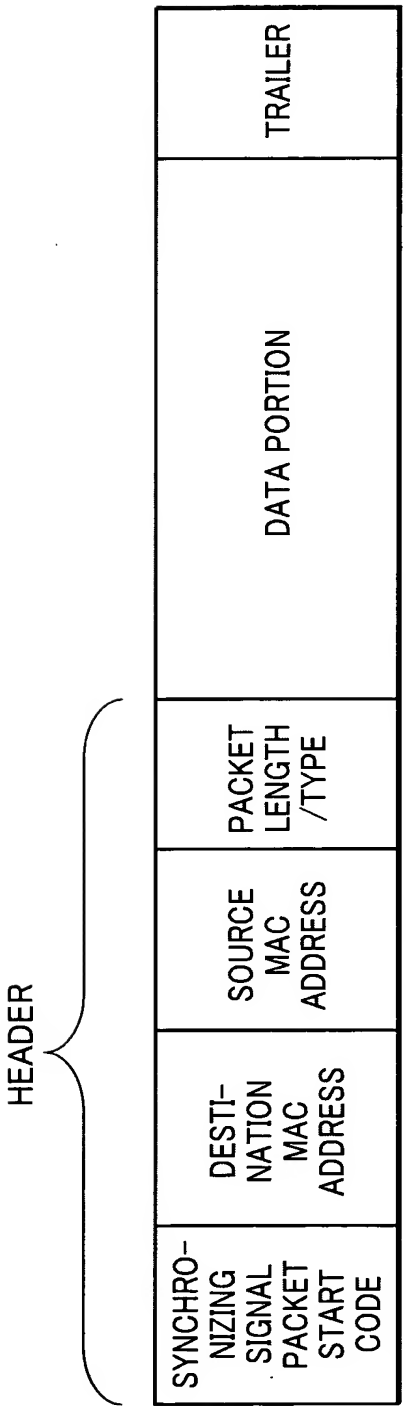
HEADER
SYNCHRO-NIZING SIGNAL PACKET START CODE
DESTI-NATION MAC ADDRESS
SOURCE MAC ADDRESS
PACKET LENGTH /TYPE
DATA PORTION
TRAILER

Fig.5

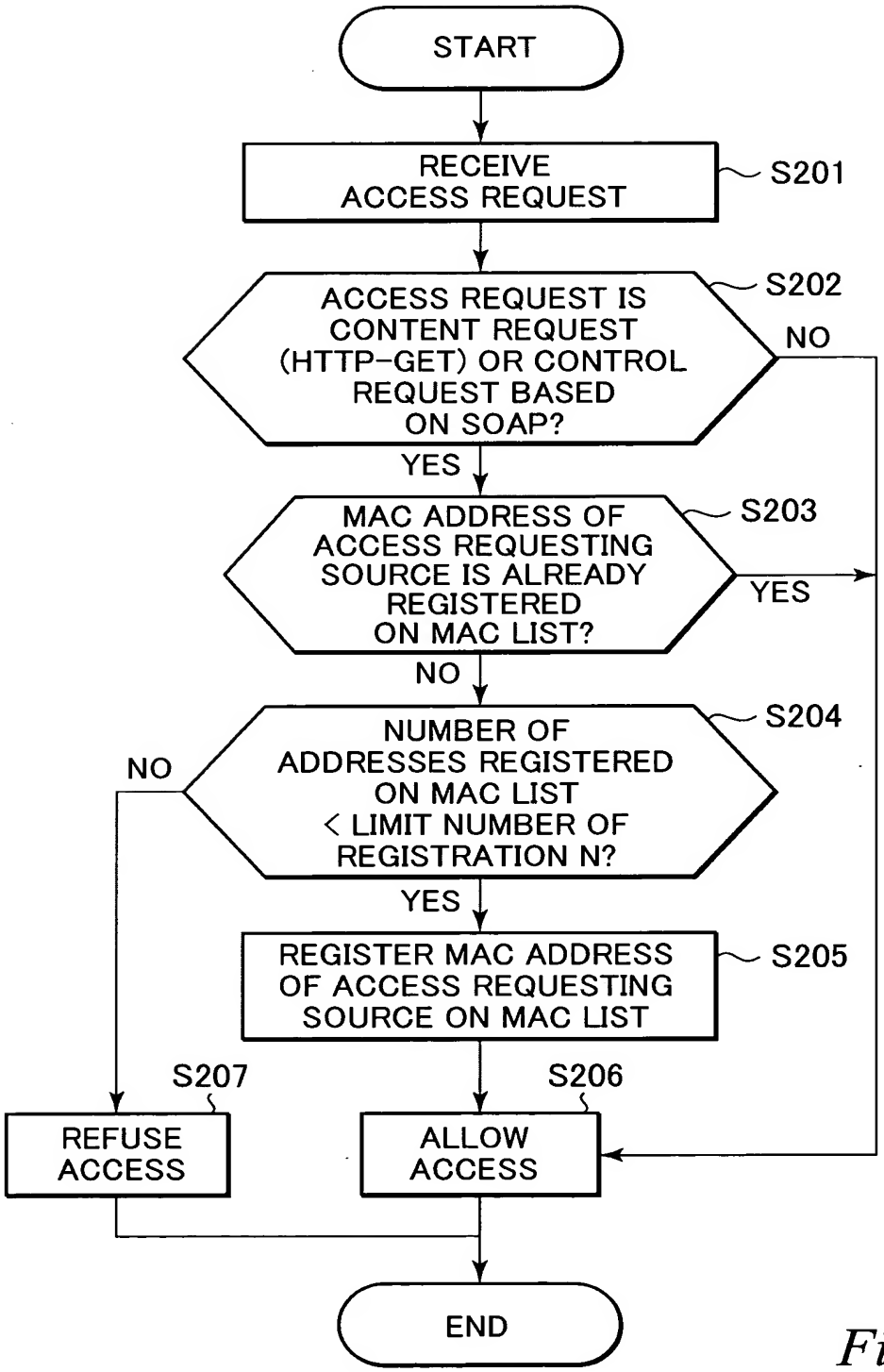
START
RECEIVE ACCESS REQUEST
S201
ACCESS REQUEST IS CONTENT REQUEST (HTTP-GET) OR CONTROL REQUEST BASED ON SOAP?
S202
NO
YES
MAC ADDRESS OF ACCESS REQUESTING SOURCE IS ALREADY REGISTERED ON MAC LIST?
S203
YES
NO
NUMBER OF ADDRESSES REGISTERED ON MAC LIST < LIMIT NUMBER OF REGISTRATION N?
S204
NO
YES
REGISTER MAC ADDRESS OF ACCESS REQUESTING SOURCE ON MAC LIST
S205
S207
S206
REFUSE ACCESS
ALLOW ACCESS
END

Fig.6

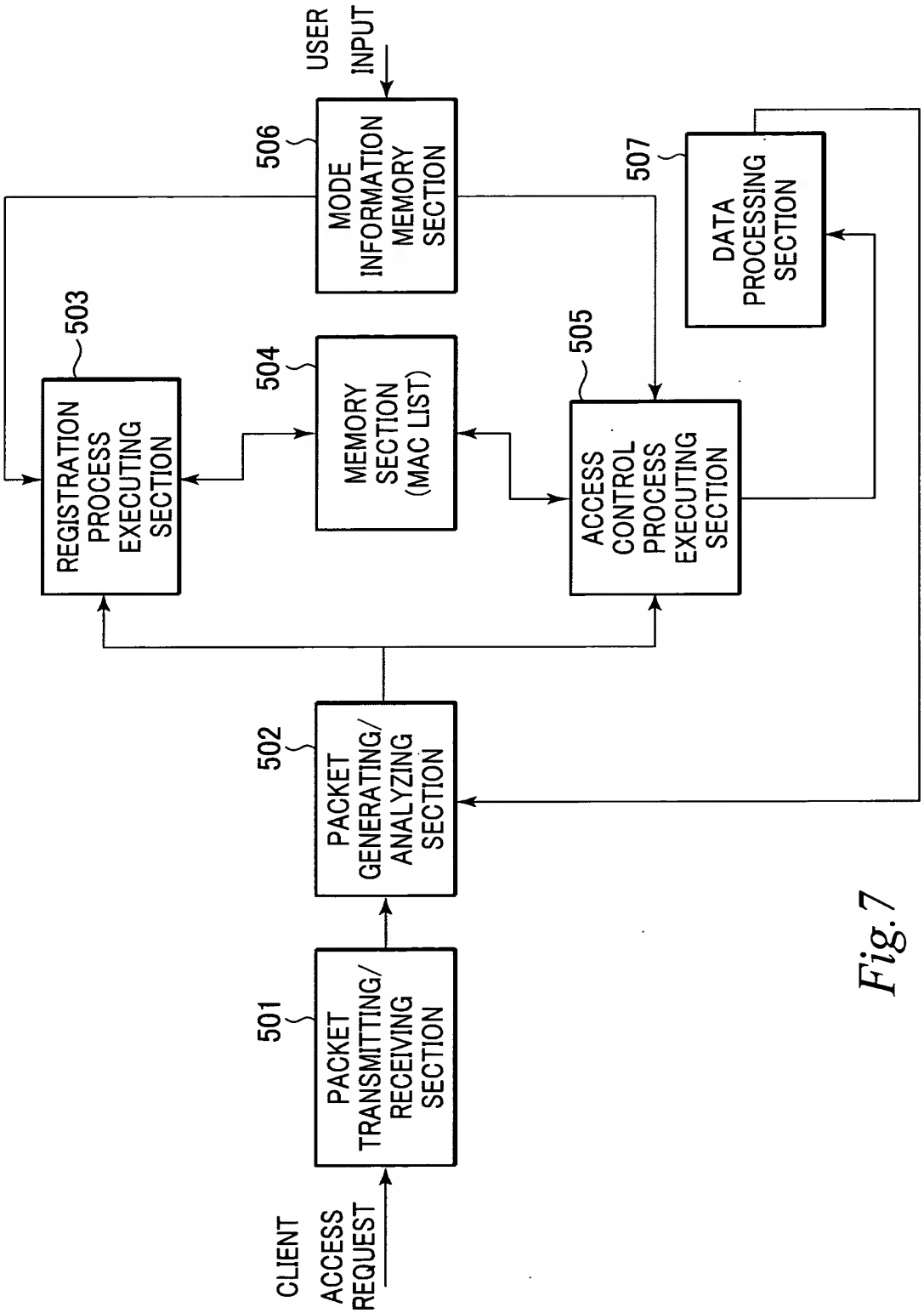
USER INPUT
506
MODE INFORMATION MEMORY SECTION
507
DATA PROCESSING SECTION
503
REGISTRATION PROCESS EXECUTING SECTION
504
MEMORY SECTION (MAC LIST)
505
ACCESS CONTROL PROCESS EXECUTING SECTION
502
PACKET GENERATING/ ANALYZING SECTION
501
PACKET TRANSMITTING/ RECEIVING SECTION
CLIENT ACCESS REQUEST

Fig.7

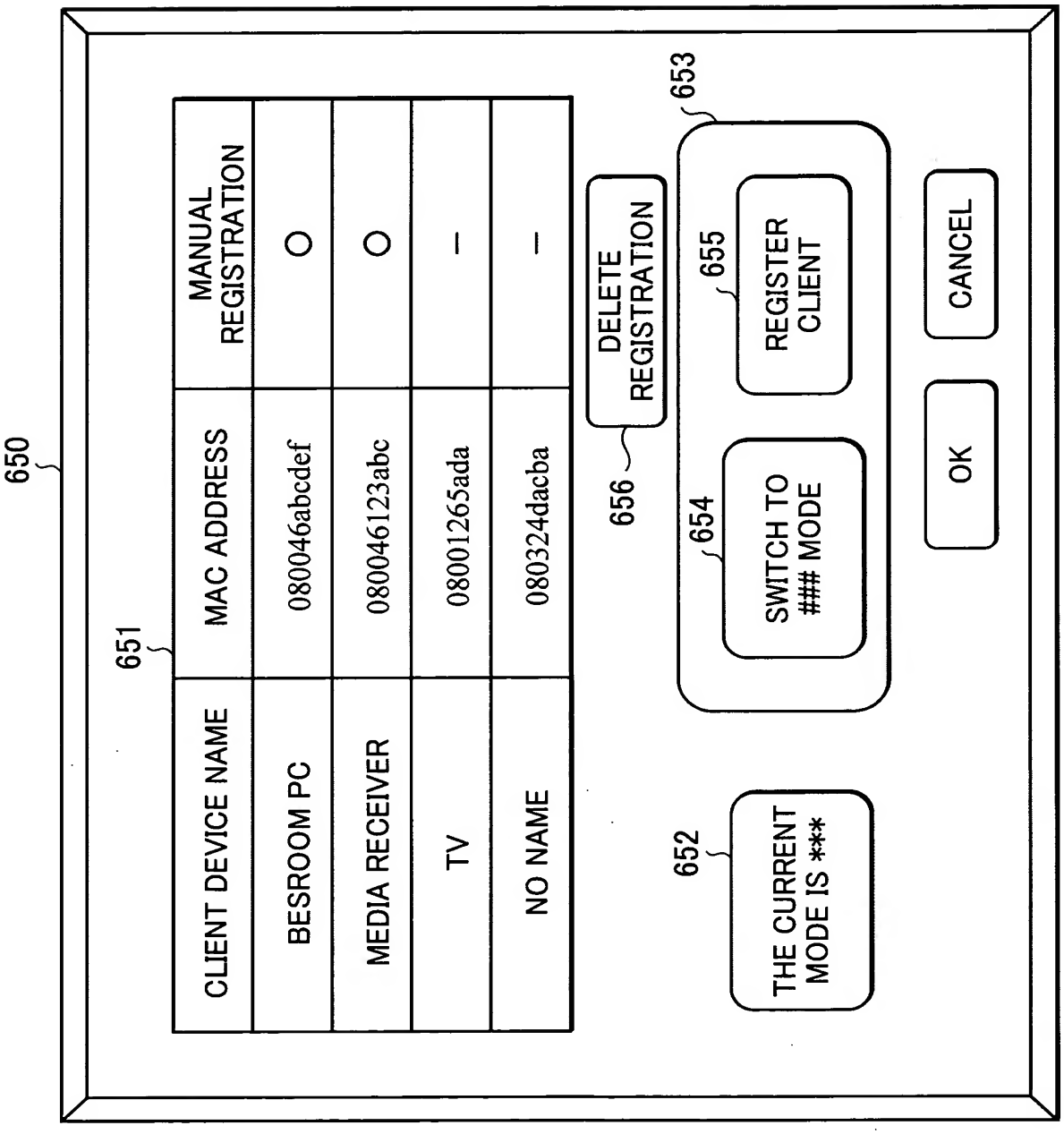
650
651
CLIENT DEVICE NAME
MAC ADDRESS
MANUAL REGISTRATION
BESROOM PC
080046abcdef
O
MEDIA RECEIVER
080046123abc
O
TV
08001265ada
–
NO NAME
080324dacba
–
652
THE CURRENT MODE IS ***
653
654
SWITCH TO ### MODE
655
REGISTER CLIENT
656
DELETE REGISTRATION
OK
CANCEL

Fig.8

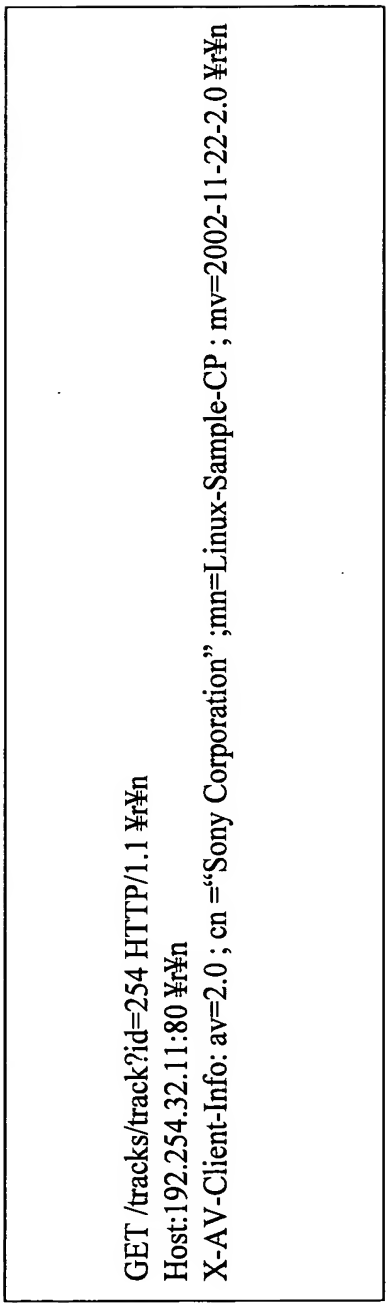
GET /tracks/track?id=254 HTTP/1.1 ¥r¥n
Host:192.254.32.11:80 ¥r¥n
X-AV-Client-Info: av=2.0 ; cn ="Sony Corporation" ;mn=Linux-Sample-CP ; mv=2002-11-22-2.0 ¥r¥n

Fig.9

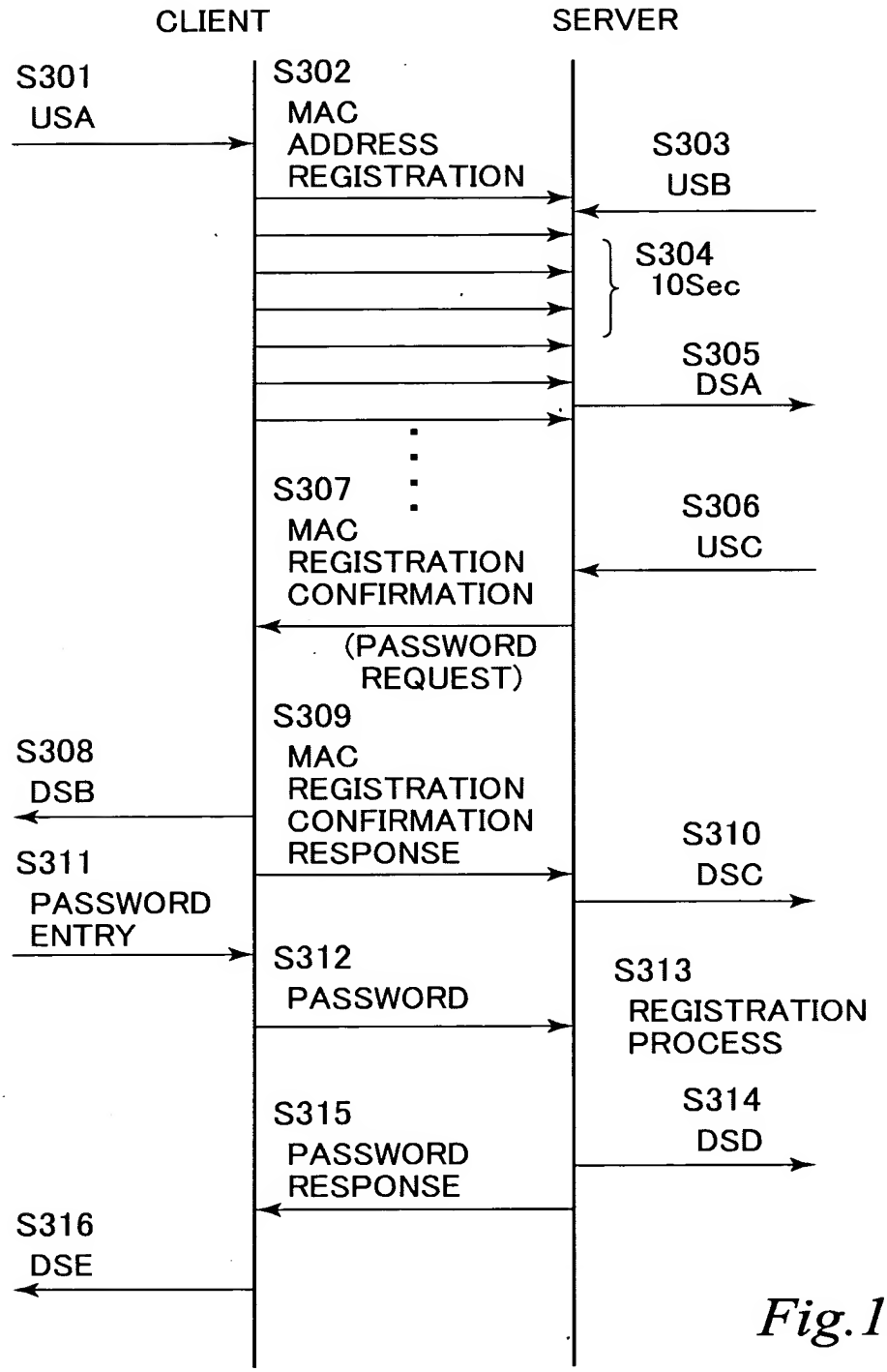
CLIENT
SERVER
S301
USA
S302
MAC
ADDRESS
REGISTRATION
S303
USB
S304
10Sec
S305
DSA
S306
USC
S307
MAC
REGISTRATION
CONFIRMATION
(PASSWORD
REQUEST)
S308
DSB
S309
MAC
REGISTRATION
CONFIRMATION
RESPONSE
S310
DSC
S311
PASSWORD
ENTRY
S312
PASSWORD
S313
REGISTRATION
PROCESS
S314
DSD
S315
PASSWORD
RESPONSE
S316
DSE

Fig.10

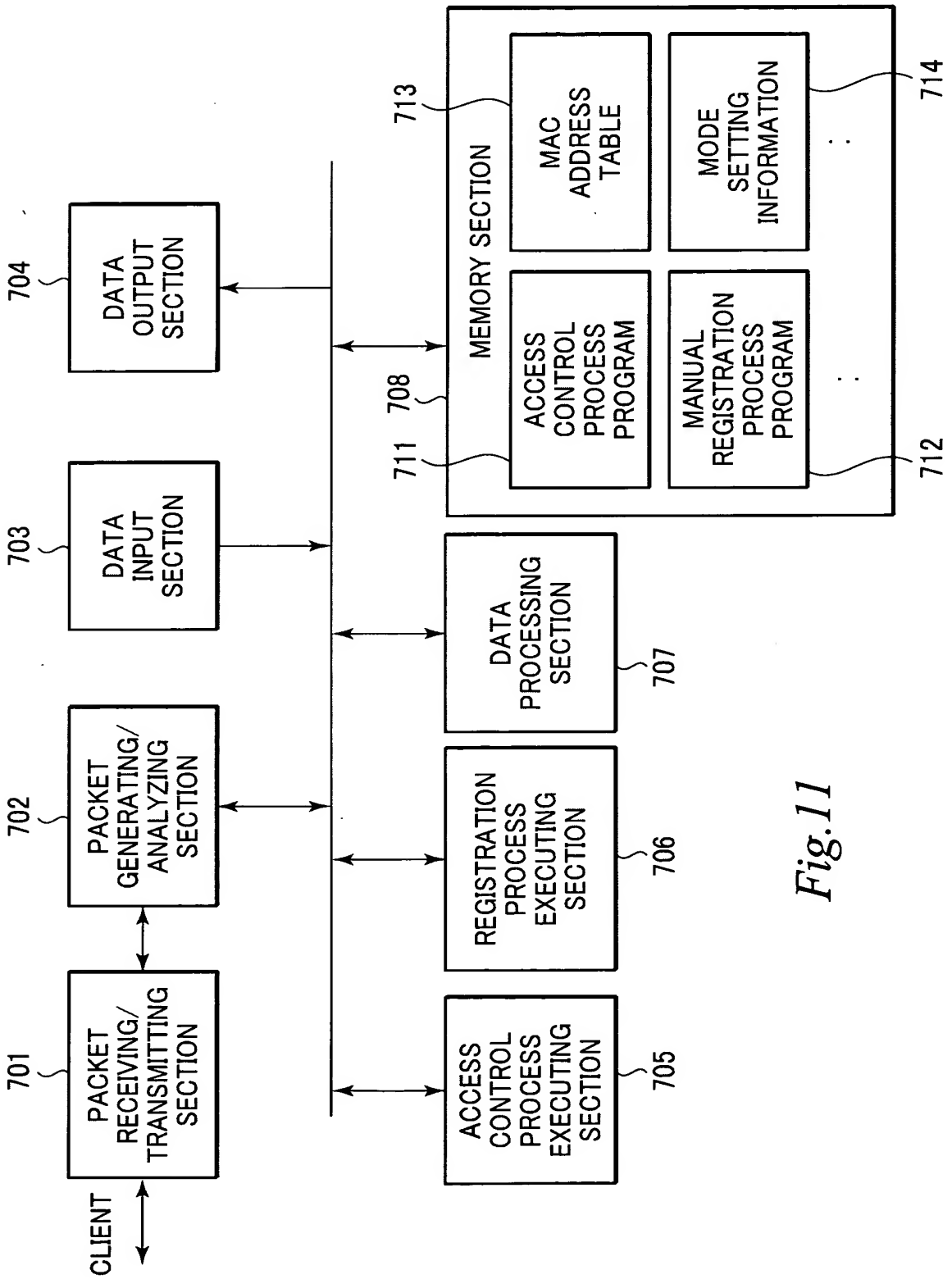
CLIENT
701
PACKET RECEIVING/ TRANSMITTING SECTION
702
PACKET GENERATING/ ANALYZING SECTION
703
DATA INPUT SECTION
704
DATA OUTPUT SECTION
705
ACCESS CONTROL PROCESS EXECUTING SECTION
706
REGISTRATION PROCESS EXECUTING SECTION
707
DATA PROCESSING SECTION
708
711
712
713
714
MEMORY SECTION
ACCESS CONTROL PROCESS PROGRAM
MANUAL REGISTRATION PROCESS PROGRAM
MAC ADDRESS TABLE
MODE SETTING INFORMATION

Fig.11

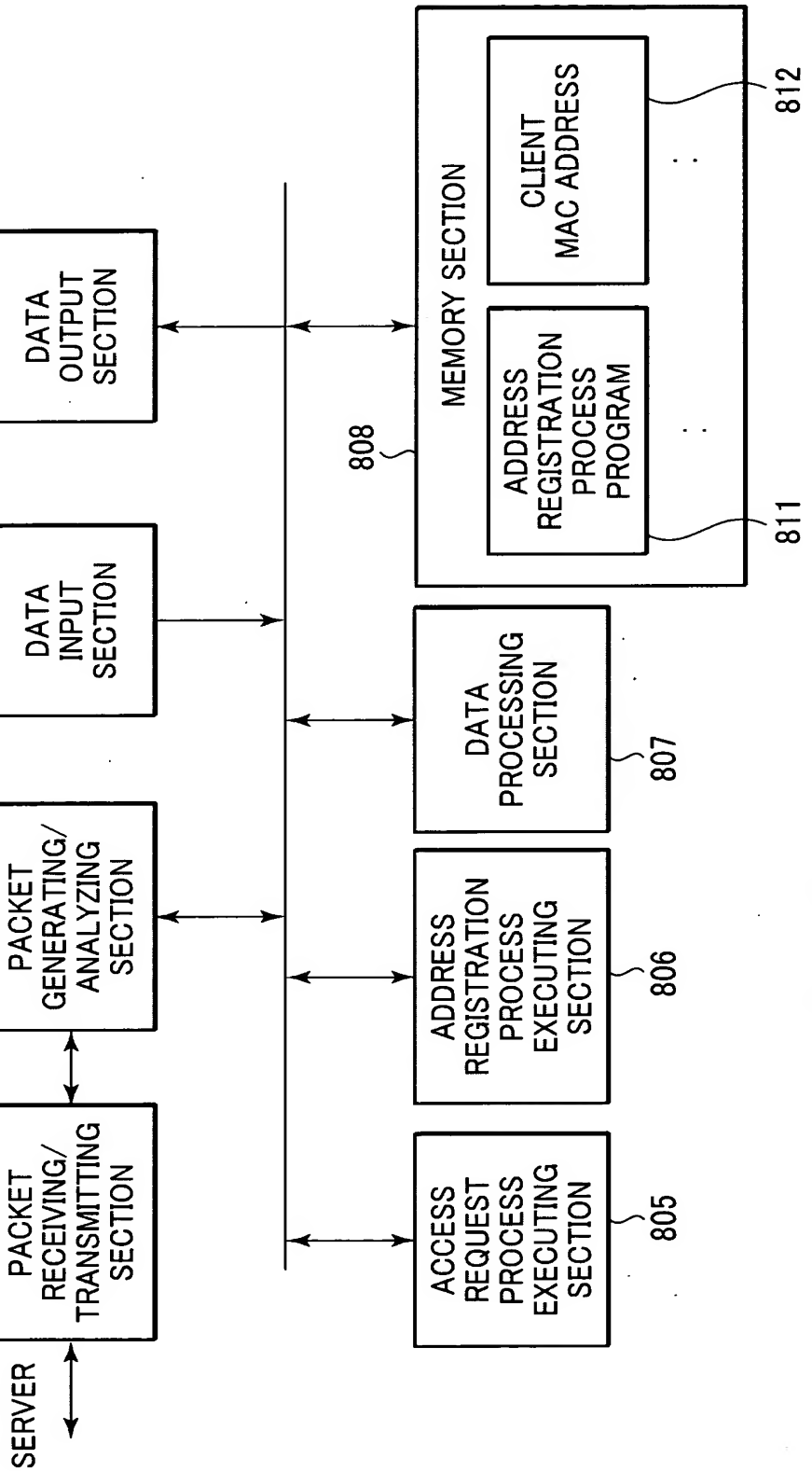
SERVER
801
PACKET RECEIVING/ TRANSMITTING SECTION
802
PACKET GENERATING/ ANALYZING SECTION
803
DATA INPUT SECTION
804
DATA OUTPUT SECTION
805
ACCESS REQUEST PROCESS EXECUTING SECTION
806
ADDRESS REGISTRATION PROCESS EXECUTING SECTION
807
DATA PROCESSING SECTION
808
MEMORY SECTION
811
ADDRESS REGISTRATION PROCESS PROGRAM
812
CLIENT MAC ADDRESS

Fig.12